IN THE TITLE

Please replace the Title, at page 1, line 1, with the following:

ARRANGEMENT AND METHOD FOR CONTROLLING THE TRANSMISSION OF A LIGHT SIGNAL BASED ON INTENSITY OF A RECEIVED LIGHT SIGNAL

REMARKS

I. Status of the Application

Claims 1-21 are pending in this application. In the June 17, 2002 Office Action, the Examiner:

1. Required a new title to the application on the basis that the existing title was allegedly not descriptive;

2. Rejected claims 1-5 and 7-11 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,900,983 to Ford et al (hereinafter "Ford");

3. Objected to claims 6 and 12 as being dependent upon a rejected base claim; and

4. Allowed claims 13-21.

Applicants respectfully traverse the rejections of claims 1-5 and 7-11 and respectfully request reconsideration of the pending claims in view of the following remarks.

II. The Title has Been Amended

The title to the application has been amended as required by the Examiner. The new title reflects that the transmission of a light signal is controlled based on the intensity of a received light signal. It is respectfully submitted that the title reflects the inventions to which the claims are directed.

III. The Prior Art Rejections Should be Withdrawn

Claims 1-5 and 7-11 have bee rejected as allegedly being anticipated by Ford. As will be discussed below in detail, Ford fails to disclose or suggest each and every element of any of claims 1-5 and 7-11.

A. Claim 1

1. The Present Invention

Claim 1 is directed to a method of controlling the transmission of a light signal, including transmitting the light signal through a first fiber optic line. The light signal is received by a light receiving unit that is operatively coupled to the first fiber optic line. The light receiving unit is operative to refract the light signal so that the light signal is substantially prevented from being transmitted through the light receiving unit *if an intensity level of the light signal has a predetermined relationship with an intensity threshold level.*

Thus, the received light signal is substantially prevented from being retransmitted based on the intensity level of the received light signal. In particular, the retransmission is prevented if the light signal has a predetermined relationship with an intensity threshold level.

2. Ford

Ford is directed to a level-setting optical attenuator. In general, Ford discloses an attenuator that alters its attenuation level based on the measured intensity of an incoming light signal. In other words, Ford employs feedback to adjust an attenuation level of an attenuator. To this end, Ford teaches that some or all of an input signal is provided to a measurement device. The measurement device provides information regarding the measured strength of the received signal to control circuitry. The control circuitry adjusts the attenuation level responsive to the signal strength measurement information.

3. Ford does not Teach Substantially Preventing Transmission of a Light Signal Based on Intensity Level of the Light Signal.

Ford fails to teach, show or suggest a light receiving unit operative "to refract [a] light signal so that said light signal is substantially prevented from being transmitted through said light receiving unit if an intensity level of said light signal has a predetermined relationship with an intensity threshold level", as called for in claim 1. Indeed, Ford fails to show any device that substantially prevents a light signal from being transmitted *based on the intensity level of the light signal.*

Instead, Ford teaches a variable attenuator presumably used to maintain a

consistent signal strength of retransmitted light signals. For example, Ford teaches that:

> Optical fiber-coupled components transmit digital or analog data over optical communications networks at time-varying power levels. Notwithstanding such variation, it *is desirable* for the average transmitted power to remain substantially constant. In the absence of such average power-level stability, problems relating to exceeding maximum or minimum input levels on other network components may arise.

(Ford, column 1, lines 15-23). Thus, the problem addressed by Ford is maintaining a constant average output power. To this end, a variable attenuator may be used "to increase or decrease attenuation to maintain constant average signal power out of the optical tap." (*Id.* at lines 55-57). Accordingly, the goal of Ford is to maintain a constant average output power, *and not* to substantially *prevent* transmission of the received light signal.

Indeed, Ford does not provide any motivation or suggestion to prevent transmission of signals as a function of intensity of the signal.

In connection with the rejection of claim 1, the Examiner provided the following reasoning:

> Referring to claim 1, Ford et al. discloses all the limitations claimed method. Ford et al. discloses . . . receiving the light signal with a light receiving unit (50a), where the light receiving unit refracts the light signal so that the light signal is substantially prevented from being transmitted through the light receiving unit if an intensity level of the light signal is greater than a predetermined intensity threshold. See Fig. 2A and Fig. 3B, along with their respective portions of the specification. Ford et al. clearly discloses that some or all of the optical signal can be directed to an optical detector (50b). It is inherent within the device that if all or most of the optical signal (33) were directed to an optical detector, then the amount of transmitted signal (28) would be substantially reduced.

(December 24, 2002 office action at p.3)

Accordingly, the Examiner appears to allege that 1) Ford discloses that all of the optical signal *can* be directed to an optical detector and 2) if so directed, transmission of the signal is substantially prevented. Applicant does not dispute *these* characterizations of Ford. However, nothing in Ford teaches or suggests that *all* of the optical signal would

be directed to the optical detector *when* the optical signal has a predetermined relationship with an intensity level threshold. At best, Ford is completely silent as to when all of the signal would be directed away from the output.

In particular, the portion of the specification that mentions directing the beam 22 of Ford to the detector 50b is at column 3, line 66, which reads:

> The variable attenuator 50a attenuates the optical signal 22 by a variable predetermined threshold amount, and directs some or all of an attenuated signal portion 26 of the signal 22 to an optical detector 50b.

This passage does not disclose, mention or imply any light intensity threshold, nor any condition upon which "all" of the signal would be directed to the optical detector.

Accordingly, Ford does not teach, show or suggest the use of a light receiving unit "operative to refract said light signal so that said light signal is substantially prevented from being transmitted through said light receiving unit if an intensity level of said light signal has predetermined relationship with a intensity level threshold", as called for in claim 1. For at least this reason, it is respectfully submitted that the anticipation rejection of claim 1 is in error and should be withdrawn.

B. Claims 2-5 and 7

Claims 2-5 and 7 also stand rejected as allegedly being anticipated by Ford. Claims 2-5 and 7 all depend from and incorporate all of the limitations of claim 1. As a result, it is respectfully submitted that the rejection of claims 2-5 and 7 should be withdrawn for at least the same reasons as those set forth above in connection with claim 1.

C. Claim 8

Claim 8 also stands rejected as allegedly being anticipated by Ford.

Claim 8 is directed to an arrangement for controlling the transmission of a light signal, including a first fiber optic line for transmitting the light signal. A light receiving unit is operatively coupled to the first fiber optic line so that the light signal is received by the light receiving unit. The light receiving unit is operative to refract the light signal so that the light signal is substantially prevented from being transmitted through the light receiving unit if an intensity level of the light signal has a predetermined relationship with an intensity threshold level.

Thus, claim 8 is directed to subject matter that is similar to the same subject matter of claim 1. In particular, claim 8 includes a light receiving unit that is operative to refract the light signal so that the light signal is substantially prevented from being transmitted through the light receiving unit *if an intensity level of the light signal has a predetermined relationship with an intensity threshold level.* Accordingly, for at least the reasons given above with regard to claim 1, it is respectfully submitted that anticipation rejection of claim 8 is in error and should be withdrawn.

D. Claims 9-11

Claims 9-11 also stand rejected as allegedly being anticipated by Ford. Claims 9-11 depend from and incorporate all of the limitations of claim 8. As a result, it is respectfully submitted that the rejection of claims 9-11 should be withdrawn for at least the same reasons as those set forth above in connection with claim 8.

E. Claims 6 and 12

It is respectfully submitted that in light of the allowability of claims 1 and 8 discussed above, the objections to claims 6 and 12 should be withdrawn.

IV. Conclusion

For all of the foregoing reasons, it is respectfully submitted the Applicant has made a patentable contribution to the art. Favorable reconsideration and allowance of this application is, therefore, respectfully requested.

Respectfully Submitted,

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APPENDIX Showing Marked-Up Paragraphs of the Amendment

In the title:

The title is amended as follows:

ARRANGEMENT AND METHOD FOR CONTROLLING THE TRANSMISSION OF A LIGHT SIGNAL BASED ON INTENSITY OF A RECEIVED LIGHT SIGNAL